



SEQUENCE LISTING

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<140> 09/819,266
<141> 2001-03-28

<150> US 60/193,156
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<223> Caspase-3 large subunit forward primer

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<223> Caspase-3 large reverse primer

<400> 3
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<223> Caspase-3 small subunit forward primer

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ggatccatga ttgagacaga cagtgg 26

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<223> Caspase-3 small reverse primer

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<223> Caspase-6 large subunit primer

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<210> 7

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 <223> CASP3SMBK

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 <210> 13
 <211> 48
 <212> DNA
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 <220>
 <223> CASP3LGBK

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 <223> HMFG1VHFW

 <400> 14
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<212> DNA
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<210> 25
<211> 559
<212> PRT
<213> Artificial Sequence

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<220>
<223> HMFG1 Fab/Caspase-3 fusion protein heavy chain

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Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly
          35           40           45

Tyr Thr Phe Ser Ala Tyr Trp Ile Glu Trp Val Arg Gln Ala Pro Gly
          50           55           60

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Lys	Gly	Leu	Glu	Trp	Val	Gly	Glu	Ile	Leu	Pro	Gly	Ser	Asn	Asn	Ser	65	70	75	80
Arg	Tyr	Asn	Glu	Lys	Phe	Lys	Gly	Arg	Val	Thr	Val	Thr	Arg	Asp	Thr	85	90	95	
Ser	Thr	Asn	Thr	Ala	Tyr	Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	100	105	110	
Thr	Ala	Val	Tyr	Tyr	Cys	Ala	Arg	Ser	Tyr	Asp	Phe	Ala	Trp	Phe	Ala	115	120	125	
Tyr	Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	130	135	140	
Gly	Pro	Ser	Val	Phe	Pro	Leu	Ala	Pro	Ser	Ser	Lys	Ser	Thr	Ser	Gly	145	150	155	160
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Val	Thr	Val	Ser	Trp	Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	180	185	190	
Phe	Pro	Ala	Val	Leu	Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val	195	200	205	
Val	Thr	Val	Pro	Ser	Ser	Ser	Leu	Gly	Thr	Gln	Thr	Tyr	Ile	Cys	Asn	210	215	220	
Val	Asn	His	Lys	Pro	Ser	Asn	Thr	Lys	Val	Asp	Lys	Lys	Val	Gly	Gly	225	230	235	240
Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Met	Ala	Ile	245	250	255	
Asp	Thr	Asp	Ser	Gly	Val	Asp	Asp	Asp	Met	Ala	Cys	His	Lys	Ile	Pro	260	265	270	
Val	Asp	Ala	Asp	Phe	Leu	Tyr	Ala	Tyr	Ser	Thr	Ala	Pro	Gly	Tyr	Tyr	275	280	285	
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290		295		300
Ala Met Leu Lys Gln Tyr	Ala Asp Lys Leu Glu Phe Met His Ile Leu			
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Thr Arg Val Asn Arg Lys Val Ala Thr Glu Phe Glu Ser Phe Ser Phe				
	325	330		335
Asp Ala Thr Phe His Ala Lys Lys Gln Ile Pro Cys Ile Val Ser Met				
	340	345		350
Leu Thr Lys Glu Leu Tyr Phe Tyr His Asp Glu Val Asp Gly Gly Ser				
	355	360		365
Pro Met Glu Asn Thr Glu Asn Ser Val Asp Ser Lys Ser Ile Lys Asn				
	370	375		380
Leu Glu Pro Lys Ile Ile His Gly Ser Glu Ser Met Asp Ser Gly Ile				
385	390	395		400
Ser Leu Asp Asn Ser Tyr Lys Met Asp Tyr Pro Glu Met Gly Leu Cys				
	405	410		415
Ile Ile Ile Asn Asn Lys Asn Phe His Lys Ser Thr Gly Met Thr Ser				
	420	425		430
Arg Ser Gly Thr Asp Val Asp Ala Ala Asn Leu Arg Glu Thr Phe Arg				
	435	440		445
Asn Leu Lys Tyr Glu Val Arg Asn Lys Asn Asp Leu Thr Arg Glu Glu				
	450	455		460
Ile Val Glu Leu Met Arg Asp Val Ser Lys Glu Asp His Ser Lys Arg				
465	470	475		480
Ser Ser Phe Val Cys Val Leu Leu Ser His Gly Glu Glu Gly Ile Ile				
	485	490		495
Phe Gly Thr Asn Gly Pro Val Asp Leu Lys Lys Ile Thr Asn Phe Phe				
	500	505		510
Arg Gly Asp Arg Cys Arg Ser Leu Thr Gly Lys Pro Lys Leu Phe Ile				
	515	520		525

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Val Asp Lys Leu Ala Ala Ala Leu Glu His His His His His His
 545 550 555

<210> 26
 <211> 242
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> HMFG1 Fab/Caspase-3 fusion protein light chain

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 20 25 30

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 35 40 45

Gln Ser Leu Leu Tyr Ser Ser Asn Gln Lys Ile Tyr Leu Ala Trp Tyr
 50 55 60

Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr Trp Ala Ser
 65 70 75 80

Thr Arg Glu Ser Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly
 85 90 95

Thr Asp Phe Thr Phe Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala
 100 105 110

Thr Tyr Tyr Cys Gln Gln Tyr Tyr Arg Tyr Pro Arg Thr Phe Gly Gln
 115 120 125

Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe
 130 135 140

Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val
 145 150 155 160

Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp
 165 170 175

Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr
 180 185 190

Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr
 195 200 205

Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val
 210 215 220

Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly
 225 230 235 240

Glu Cys

<210> 27
 <211> 1673
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> scFv-rearranged Caspase-3 fusion protein

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 gcagtggatc tgggacctct tactctctca caatcagccg aatggagggt gaagatgctg 660
 ccacttatta ctgccagcaa aggagtagtt acccactcac gttcggtgct ggcaccaagc 720
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<210> 28
<211> 556
<212> PRT
<213> Artificial Sequence

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<220>
<223> scFv-rearranged Caspase-3 fusion protein

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Gly Thr Ser Val Lys Leu Ser Cys Thr Ala Ser Gly Phe Asn Ile Lys
20 25 30

Asp Ser Tyr Met His Trp Leu Arg Gln Gly Pro Glu Gln Gly Leu Glu
35 40 45

Trp Ile Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Glu Tyr Ala Pro
50 55 60

Lys Phe Gln Gly Lys Ala Thr Phe Thr Thr Asp Thr Ser Ser Asn Thr
65 70 75 80

Ala Tyr Leu Gln Leu Ser Ser Leu Thr Ser Glu Asp Thr Ala Val Tyr
85 90 95

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Tyr	Cys	Asn	Glu	Gly	Thr	Pro	Thr	Gly	Pro	Tyr	Tyr	Phe	Asp	Tyr	Trp	100	105	110	
Gly	Gln	Gly	Thr	Thr	Val	Thr	Val	Ser	Ser	Gly	Gly	Gly	Gly	Ser	Gly	115	120	125	
Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Glu	Asn	Val	Leu	Thr	Gln	Ser	130	135	140	
Pro	Ala	Ile	Met	Ser	Ala	Ser	Pro	Gly	Glu	Lys	Val	Thr	Ile	Thr	Cys	145	150	155	160
Ser	Ala	Ser	Ser	Ser	Val	Ser	Tyr	Met	His	Trp	Phe	Gln	Gln	Lys	Pro	165	170	175	
Gly	Thr	Ser	Pro	Lys	Leu	Trp	Ile	Tyr	Ser	Thr	Ser	Asn	Leu	Ala	Ser	180	185	190	
Gly	Val	Pro	Ala	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Ser	Tyr	Ser	195	200	205	
Leu	Thr	Ile	Ser	Arg	Met	Glu	Ala	Glu	Asp	Ala	Ala	Thr	Tyr	Tyr	Cys	210	215	220	
Gln	Gln	Arg	Ser	Ser	Tyr	Pro	Leu	Thr	Phe	Gly	Ala	Gly	Thr	Lys	Leu	225	230	235	240
Glu	Leu	Gln	Pro	Gly	Gly	Ser	Gly	Gly	Thr	Met	Ala	Ile	Asp	Thr	Asp	245	250	255	
Ser	Gly	Val	Asp	Asp	Asp	Met	Ala	Cys	His	Lys	Ile	Pro	Val	Asp	Ala	260	265	270	
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Lys	Gln	Tyr	Ala	Asp	Lys	Leu	Glu	Phe	Met	His	Ile	Leu	Thr	Arg	Val	305	310	315	320
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545					550					555						

